

In re Patent Application of
HEELEY ET AL.
Serial No. 10/521,039
Filed: NOVEMBER 14, 2005

In the Claims:

This listing of claims replaces all prior versions and listing of claims in the application.

Claims 1-15 (canceled).

16. (Previously presented) A locking mechanism for a latch mechanism having a latch spindle turnable to move a latch bolt from its latching position, the locking mechanism comprising:

a rotatable handle having a drive passageway therein for fitting to an adjacent end of the latch spindle; and

a locking member mounted on the handle; and

a retainer associated and engageable with the locking member to lock the handle against rotation;

the drive passageway being configured to allow the handle to turn relatively to the latch spindle in opposite directions through a predetermined angle of movement, at one end of which, the handle is engageable with the latch spindle for turning the latch spindle in an opening direction to move the latch bolt from its latching position and, at the opposite end of which, the handle is in a locking position in which the locking member is engageable with the retainer and the handle is engageable with the spindle to prohibit turning of the spindle in the opening direction.

17. (Previously presented) The locking mechanism as claimed in Claim 16, wherein the locking member is slidably

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mounted in the handle and is selectively controllable to be engaged with and disengaged from the retainer.

18. (Previously presented) The locking mechanism as claimed in Claim 17, wherein the locking member has a control device projecting closely adjacent the handle in a convenient position for manual operation by a person gripping the handle, and the locking member is resiliently urged towards a position in which it is engageable with the retainer.

19. (Previously presented) The locking mechanism as claimed in Claim 16, further comprising a guide defining an arc of movement for the locking member when the handle is turned in the opening direction from its rest position.

20. (Previously presented) The locking mechanism as claimed in Claim 19, further comprising a spring device biasing the handle to a rest position corresponding to the one end of the angle of movement defined by the drive passageway; the guide including a stop engageable by the locking member to define the rest position and the retainer being disposed in spaced relation to the stop in the opposite direction to that in which the handle is turnable from its rest position to turn the latch spindle in the opening direction.

21. (Previously presented) The locking mechanism as claimed in Claim 20, wherein the retainer comprises a hole with which a projecting end of the locking member is engageable to lock the handle in its locking position; wherein

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the guide comprises an arcuate groove along which the projecting end of the locking member moves when the handle is turned from its rest position in the opening direction of the latch spindle; and wherein the stop defining the rest position of the handle comprises an end of the arcuate groove adjacent the retainer.

22. (Previously presented) The locking mechanism as claimed in Claim 21, wherein the handle comprises a lever arm which, in the rest position is arranged to be substantially horizontal, and wherein the retainer is disposed along the arc of movement of the locking member above the stop defining the rest position and at a position spaced about 45°-60° above the stop, whereby the lever arm is lifted to permit the locking member to engage with the retainer and lock the handle in its locking position.

23. (Previously presented) The locking mechanism as claimed in Claim 22, wherein the guide comprises a semi-circular guide to provide a stop and rest position at opposite ends of the guide, and wherein the retainer is adjacent opposite ends of the guide, whereby the handle may be fitted to provide for either clockwise or counterclockwise rotation for turning the handle from its rest position to move the latch spindle in the opening direction.

24. (Previously presented) The locking mechanism as claimed in Claim 16, further comprising a base plate securable to a door having the latch mechanism and mounting the retainer

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thereon; and wherein the handle is rotatably mounted in the base plate.

25. (Previously presented) The locking mechanism as claimed in Claim 16, wherein the drive passageway in the handle is axially fluted and includes an internal cross-section comprising ribs and grooves symmetrically spaced about the internal periphery of the passageway and arranged to allow the handle to have a predetermined degree of rotational freedom relative to the latch spindle when engaged therewith.

26. (Previously presented) The locking mechanism as claimed in Claim 25, wherein the bottom periphery of each of the grooves semi-circular in cross-section having a diameter substantially corresponding to a length of a diagonal of a square section of the adjacent end of the latch spindle so that the handle can turn relatively to the latch spindle in opposite directions through the predetermined angle of movement, at opposite ends of which, the ribs engage the square section latch spindle.

27. (Previously presented) The locking mechanism as claimed in Claim 16, further comprising a second handle having a passageway therein for fitting to the end of the latch spindle opposite to that fitted with the locking member.

28. (Previously presented) The locking mechanism as claimed in Claim 27, wherein the latch spindle comprises a two-part latch spindle, both parts of which are of square

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section with one part twisted with respect to the other to accommodate a change in relative positions with the drive passageway.

29. (Previously presented) A latch mechanism comprising:

a latch spindle;

a latch bolt movable from a latching position to a release position in response to turning of the latch spindle; and

a locking mechanism comprising

a rotatable handle having a drive passageway therein fitted to an adjacent end of the latch spindle, and

a locking member mounted on the handle, and

a retainer associated and engageable with the locking member to lock the handle against rotation,

the drive passageway being configured to allow the handle to turn relatively to the latch spindle in opposite directions through a predetermined angle of movement, at one end of which, the handle is engageable with the latch spindle for turning the latch spindle in an opening direction to move the latch bolt from its latching position and, at the opposite end of which, the handle is in a locking position in which the locking member is engageable with the retainer and the handle is engageable with the spindle to prohibit turning of the spindle in the opening direction.

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30. (Previously presented) The latch mechanism as claimed in Claim 29, wherein the locking member is slidably mounted in the handle and is selectively controllable to be engaged with and disengaged from the retainer.

31. (Previously presented) The latch mechanism as claimed in Claim 30, wherein the locking member has a control device projecting closely adjacent the handle in a convenient position for manual operation by a person gripping the handle, and the locking member is resiliently urged towards a position in which it is engageable with the retainer.

32. (Previously presented) The latch mechanism as claimed in Claim 29, further comprising a guide defining an arc of movement for the locking member when the handle is turned in the opening direction from its rest position.

33. (Previously presented) The locking mechanism as claimed in Claim 32, further comprising a spring device biasing the handle to a rest position corresponding to the one end of the angle of movement defined by the drive passageway; the guide including a stop engageable by the locking member to define the rest position and the retainer being disposed in spaced relation to the stop in the opposite direction to that in which the handle is turnable from its rest position to turn the latch spindle in the opening direction.

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34. (Previously presented) A locking mechanism for a latch mechanism having a latch spindle turnable to move a latch bolt from a latching position, the locking mechanism comprising:

a rotatable handle for fixing to an adjacent end of the latch spindle for turning the latch spindle;

a locking member mounted on the handle;

a retainer associated and engageable with the locking member, in a locking position of the handle, to prohibit turning of the handle and the latch spindle;

a guide spaced from the locking position and delimiting an arc of movement of the locking member when the handle is turned from a rest position to move the latch bolt from its latching position; and

an actuator for operating the locking member to permit the handle to be turned from the rest position to the locking position and the locking member to be engageable with the retainer.

35. (Previously presented) The locking mechanism as claimed in Claim 34, wherein the locking member is slidably mounted in the handle and is selectively controllable to be engaged with and disengaged from the retainer.

36. (Previously presented) The locking mechanism as claimed in Claim 34, further comprising a base plate securable to a door having the latch mechanism and mounting the retainer thereon; and wherein the handle is rotatably mounted in the base plate.